

REMARKS

Responsive to the Office Action mailed January 22, 2009, Applicant provides the following. Claims 1-6, 8, 9, 11, 12, 14 and 15 have been amended. Claim 16 has been added without adding any new matter. As such, Sixteen (16) claims remain pending in the application: Claims 1-16. Reconsideration of claims 1-15 in view of the amendments above and remarks below and consideration of new claim 16 is respectfully requested.

By way of this amendment, Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues, it is respectfully requested that the Examiner telephone the undersigned at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

Claim Rejections - 35 U.S.C. §112

Claims 1-15 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim that which Applicant regards as the invention. Applicant respectfully submits that claims 1, 3, 9, 11, 14 and 15 have been amended to remove the language objected to by the Examiner. As such, Applicant respectfully requests that the rejections be withdrawn.

Claim Rejections - 35 U.S.C. §101

Claim 15 stands rejected under 35 U.S.C. § 101 as being directed to non-statutory matter. Applicant respectfully submits that claim 15 has been amended to recite "A computer-readable storage medium storing a computer program." As such, Applicant respectfully requests that the rejection be withdrawn.

Claim Rejections - 35 U.S.C. §102

Claims 1-8 stand rejected under 35 U.S.C. § 102(e), as being anticipated by U.S. Patent No. 6,938,256 (Deng et al.).

Applicant notes that the Office Action states that claims 1-8 are rejected over

Deng in view of U.S. Patent No. 6,009,455 (Doyle et al.) (see Office Action, pg. 4). Applicant believes that this is a typographical error and proceeds with the response accordingly. However, if this is not a typographical error, Applicant respectfully submits that a § 102 rejection cannot be made in view of more than one reference because a rejection under 35 U.S.C. § 102 specifically requires that each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP §2131.

Furthermore, Applicant respectfully traverses this rejection. As set forth at MPEP § 2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Applicant respectfully submits that Deng fails to disclose each and every element as recited in independent claim 1 as amended.

Specifically, amended claim 1 recites:

a plurality of information processing devices each comprising program execution means;

at least a first information processing device of the plurality of the information processing devices further comprising:

metric information management means for storing metric information in an updatable manner, said metric information representing processing metric of a part or whole of other information processing devices of the plurality of information processing devices excluding the first information processing device itself;

load measurement means for measuring the actual magnitude of the load of an information processing requested;

determination means for determining at least one available device by comparing the magnitude of the load measured by the load measurement means and the metric information stored in said metric information management means, said at least one available device being capable of executing a part or whole of said information processing requested; and

task assignment means for assigning a task corresponding to a part or whole of the information processing requested to the at least one available device determined by said determination means.

Support for the amendments can be found at least at paragraph 0015, 0067 and 0084 of Applicant's published application. Applicant respectfully submits that Deng fails to describe at least "load measurement means for measuring the actual magnitude of the load of an information processing requested." Instead, Deng describes a system for distributing incoming client

requests across multiple servers in a networked client-server computer environment. Deng specifically discloses “estimate[ing] each client request’s resource requirement” and further states “[w]hen a request from the Internet comes in, the request Examiner (120) compares the request with the patterns (112) contained in the adaptive request table (110), finds the closest match, and creates a requirement vector (116) including the five corresponding resource parameters.” (Deng, col. 5, line 67 – col. 6, line 1 and col. 6, lines 18-22). As such, it is clear that the magnitude of load relied on by Examiner in the Office Action is an estimated load measurement and does not describe load measurement means for measuring the actual magnitude of the load of an information processing requested.

In fact, Applicant’s specification emphasizes the distinction between estimating the load of the information processing requested and measuring the actual load of the information processing. For example, paragraph 0004 of Applicant’s specification specifically identifies the problems with predicting and/or estimating the magnitude of load stating, “for information processing where the magnitude of the load is unpredictable assignment of tasks cannot be achieved.” Therefore, it is clear that Deng does not describe or suggest the system as recited in claim 1.

Claims 2-8 depend upon allowable independent claim 1, and as such are also allowable at least due to their dependence on claim 1.

Furthermore, with respect to claim 2, Deng fails to describe or suggest a first list management means and a second list management means as recited. Claim 2 recites in part:

first list management means for acquiring first metric information representative of static processing metric of said other information processing devices to determine at least one or more available devices, and storing a first list in a predetermined memory area, said first list being such that the one or more available devices determined are listed; and

second management means for measuring second metric information representative of dynamic processing metric of the one or more available devices listed in said first list, creating a second list such that the second metric information measured is classified and listed per processing metric, sorting the available devices having the second metric information listed in the second list according to the task execution condition to determine at least one available device suitable for each task execution condition, and storing an index list, in which the determined at least one available device

is listed, in a predetermined memory area;

Applicant respectfully submits that Deng fails to describe or suggest a first list management means and a second list management means as recited in claim 2. Specifically, in rejecting claim 2 the Examiner contends that Deng describes “collecting resource capability information of each server and ranks the available servers” (see Office Action, pg. 5 (citing Deng, col. 5, lines 38-40 and col. 6, lines 34-40). The cited portion of Deng describes:

“The VXT (100) ranks the available servers according to specific ranking criteria and servers' current running status in CPU availability, memory availability, storage connectivity, main proxy server connectivity, and peer server connectivity and generates a resource table (132) summarizing the resource capability metric (134) in a capability vector (136).” (Deng, col. 6, lines 34-40).

As such, Deng only describes measuring the resource capability metric 134 for all available servers and storing the information into a capability vector 136.

There is no discussion in the cited portion of Deng of a first list management means for measuring static capability information, equated with the metric information recited in claim 2, for the available servers, equated with the available devices recited in claim 2, and storing a list having one or more of the available servers, and a second list measurement means for measuring dynamic capability information for those devices in the first list, and further does not disclose a separate index list ranking the devices listed in the second list. Instead, Deng only describes a single list, i.e. capability vector 136. As such, Deng fails to describe or suggest each limitation as recited in claim 2.

Claim 6 recites language similar to that of claim 2 with respect to a first list management means and a second list management means, and therefore, claim 6 is also not anticipated by the Deng reference for the reasons discussed above with respect to claim 2.

Claim Rejections - 35 U.S.C. §103

Claims 9-15 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 6,938,256 (Deng et al.) in view of U.S. Patent No. 6,009,455 (Doyle et al.). Applicant respectfully traverses this rejection.

To establish a prima facie case of obviousness ... the prior art references must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicants respectfully submit that the above-cited combination does not teach or suggest all of the limitations of amended independent claims 11, 14 and 15. The Examiner presumably contends that Deng describes, “a load measurement means for measuring a magnitude of the load of an information processing requested, wherein the magnitude of the load is unpredictable” as recited in amended claim 11. Independent claims 14 and 15 recite similar language. However, as described above with respect to claim 1, Deng describes a system for distributing incoming client requests across multiple servers in a networked client-server computer environment. Deng specifically discloses “estimate[ing] each client request’s resource requirement” and further states “[w]hen a request from the Internet comes in, the request Examiner (120) compares the request with the patterns (112) contained in the adaptive request table (110), finds the closest match, and creates a requirement vector (116) including the five corresponding resource parameters.” (Deng, col. 5, line 67 – col. 6, line 1 and col. 6, lines 18-22). As such, it is clear that the magnitude of load relied on by Examiner in the Office Action is an estimated load measurement and does not describe “a load measurement means for measuring a magnitude of the load of an information processing requested, wherein the magnitude of the load is unpredictable” as recited in claim 11.

Furthermore, with respect to claim 11, Deng and Doyle both fail to disclose “program execution means partitioned into a plurality of clusters.” The Examiner contends that Deng discloses this limitation citing to col. 2, lines 18-25 of Deng. However, this portion of Deng does not describe this limitation and in fact does not describe what is contended by the Examiner, i.e., “distribute the requests to one of several server group” (see Office Action, pg. 10). Further, even if the Deng reference described distributing the requests to one of several server groups this is not what is recited in claim 11. Instead, claim 11 recites “program execution means partitioned into a plurality of clusters.” There is no language in Deng that describes each server, i.e., information processing device comprises program execution means

partitioned into a plurality of clusters. As such, this is an additional reason that claim 11 is not rendered obvious by the combination of the above-cited references.

In fact, Applicant's specification emphasizes the distinction between estimating the load of the information processing requested and what is recited in claim 11. For example, paragraph 0004 of Applicant's specification specifically states, "In the former case, the magnitude of the load of the task must be predicted beforehand; however, for information processing where the magnitude of the load is unpredictable assignment of tasks cannot be achieved." Therefore, it is clear that Deng does not describe or suggest the system as recited in claim 11.

Doyle also fails to describe this limitation as recited in claims 11, 14 and 15. As such, the combination of the above-cited references fails to render claims 11, 14 and 15 obvious.

Claims 12 and 13 depend upon allowable independent claim 11. As such, the above cited references also fails to render claims 12 and 13 obvious at least due to their dependence on claim 11.

Claim 9 depends from allowable claim 1, and as such is also allowable at least due to its dependence upon independent claim 1.

Furthermore, with respect to claim 9, Deng and Doyle both fail to disclose "said program execution means is partitioned into a plurality of clusters ... an operating status of each cluster is provided to other information processing devices." The Examiner contends that Deng discloses this limitation citing to col. 2, lines 18-25 of Deng. However, this portion of Deng does not describe this limitation and does not describe what is contended by the Examiner, i.e., "distribute the requests to one of several server group" (see Office Action, pg. 10). Further, even if Deng described distributing the requests to one of several server groups this is not what is recited in claim 9. Instead, claim 9 recites, "said program execution means is partitioned into a plurality of clusters." Furthermore, the Deng reference discloses determining "a collection of resource capability information for each server," i.e. each information processing device, and does not describe partitioning the program execution means of at least one of the information processing devices into a plurality of clusters and providing operating status of each cluster to

other information processing devices. (see Deng col. 4, lns. 21-22). As such, this is an additional reason that claim 9 is not rendered obvious by the combination of the above-cited references.

New Claim

Newly submitted claim 16 is believed to be allowable because they are directed to that which is not shown or suggested in the prior art.

Support for new claim 16 can be found at least at paragraph 0097 of Applicant's published application.

CONCLUSION

Applicant submits that the above amendments and remarks place the pending claims in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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